

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 October 2002 (10.10.2002)

PCT

(10) International Publication Number
WO 02/078757 A1

(51) International Patent Classification⁷: **A61L 24/04**

MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (utility model), SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(21) International Application Number: **PCT/US02/08141**

(22) International Filing Date: **15 March 2002 (15.03.2002)**

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
01870071.6 **30 March 2001 (30.03.2001)** **EP**

(71) Applicant (for all designated States except US): **THE PROCTER & GAMBLE COMPANY** [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GOLDMAN, Stephen, Allen** [US/IT]; Via Colle di Moro 62, I-65013 Citta Sant' Angelo (Pescara) (IT). **ROMANO, Mario** [IT/IT]; Via Cipriani 5/1, I-65125 Pescara (IT).

(74) Common Representative: **Mr. REED, T., David**; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), DM, DZ, EC, EE, EE (utility model), ES, FI, FI (utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

Published:

- with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **SKIN-COMPATIBLE HYDROGEL ADHESIVES**

(57) Abstract: The present invention relates to hydrogel adhesives for attachment to mammalian skin which exhibit particularly good compatibility with skin, in addition to excellent attachment and painless removal properties including in excess moisture conditions. Such adhesives comprise 10-60 wt% of a cross-linked hydrophilic polymer, 5-80 wt% of a water-soluble nonionic humectant, and 10-85 wt% water. The hydrophilic polymer comprises 1-50 mole% of one or more strong-acid monomers having a pKa below 3 and 50-99 mole% of one or more weak-acid monomers, having a pKa above 3, the strong-acid monomer being essentially in its salt form, and the weak-acid monomer being at least 50 mole% in its acid form, and at least 5 mole% in its salt form. The pH of the hydrogel adhesive is from 3 to 6, preferably from 3 to 5.5, most preferably 3.5 to 5. The present invention also encompasses personal care products containing said adhesives, such as disposable waste management articles, disposable absorbent articles, and various functional articles for attachment to the human body.

WO 02/078757 A1